

**Before the
Federal Communications Commission
Washington, DC 20554**

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| In the Matter of |) | |
| |) | |
| Boulder Regional Emergency Telephone |) | PS Docket No. 19-254 |
| Service Authority Petitions |) | |
| |) | |

To: The Chief, Public Safety and Homeland Security Bureau

BRETSA REPLY COMMENTS

The Boulder Regional Emergency Telephone Service Authority (“BRETSA”), by its attorney, hereby replies to comments filed in response to the Commission’s September 11, 2019 Public Notice requesting comment on BRETSA’s November 21, 2018 Petition for Reconsideration, or in the Alternative, Petition for Declaratory Ruling and Petition for Rulemaking (“BRETSA Petitions”).

I. Introduction.

On July 6, 2016, the Colorado Public Safety Broadband Governing Body “Governing Body” filed its Request for Clarification” (“Request”) seeking a declaratory ruling to “clarify that ensuring interoperability is a fundamental responsibility of FirstNet, and that FirstNet must ensure that interoperability is supported at all levels, including network, services, applications and devices.” Request, at 8-9. The Governing Body also asked that the Commission initiate a rulemaking proceeding to (i) establish rules for all roaming arrangements to ensure interoperability, and that such rules accommodate the bidirectional nature of such roaming arrangements, and (ii) specifically address the critical issue of roaming and prioritization as it applies to applications such as push-to-talk and mission critical push-to-talk, as well as other

applications that will face the same issues. Request at 9. Notably, the Request was signed on behalf of the Governing Body by an individual who previously was a member of the Technical Advisory Board for First Responder Interoperability (“Interoperability Board”) established pursuant to 47 USC §1423 to develop and submit to the Commission the recommended minimum technical requirements to ensure a nationwide level of interoperability for the nationwide public safety broadband network.

The Request was broadly supported by the Colorado Public Safety Community including by officials of First Responder agencies dispatched by BRETSA-supported PSAPs, and it appeared by the Public Safety Community in general. A number of parties also made filings with the Commission supporting the Request.

After the Governing Board was directed to request the Commission take no further action on the Request, and upon the Commission’s dismissal of the Request, BRETSA believed (i) the Commission should not have dismissed the Request given the filings by additional parties supporting the Request, and (ii) that the Request raised critical issues for resolution. Thus, after review of the record and consultation with technical experts and public safety stakeholders, BRETSA filed the BRETSA Petitions seeking reconsideration of the dismissal, or alternative resolution of the issues raised in the Request.

BRETSA applauds and supports Congress’, the Commission’s, FirstNet Authority’s and AT&T’s efforts, progress towards, and success of the forward-looking development and deployment of the Nationwide Public Safety Broadband Network (“NPSBN”).

The BRETSA Petitions are not about core-to-core interoperability, placing commercial traffic generally on the NPSBN (*i.e.*, except to the extent public safety agencies utilize offerings of commercial service providers and leverage commercially-driven investment in networks), or

requiring FirstNet to build or support multiple networks. BRETSA's Petitions are instead about the very practical and essential needs of the public safety community to utilize extant communications resources (i) which serve areas extending beyond the FirstNet footprint, (ii) in which investment of limited public funds have already been sunk, or (iii) which better serve the unique needs of a specific jurisdiction.

II. Opposition to the Petitions.

The First Responder Network Authority ("FirstNet Authority") and AT&T filed comments opposing the BRETSA Petitions. Curiously, after belaboring the "parade of horrors" which would ensue if the BRETSA Petitions were granted and NPSBN-interoperability with LMR systems and CMRS services to public safety agencies was required; they state that FirstNet is, in fact, currently working to implement LMR interoperability. AT&T Comments, at 12-13.

AT&T also claims that the Act only authorizes the FirstNet Authority discretion to negotiate agreements for *outbound* roaming by first responders onto commercial networks "as it determines appropriate," citing 47 U.S.C. §1426(c)(5), but does not *require* the FirstNet Authority to allow *inbound* roaming onto the NPSBN by [First Responder] customers of other commercial service providers...." AT&T Comments, at 13-14. However the negotiation of agreements for outbound-roaming including prioritization of public safety communications may well require the expenditure of funds, or provision of other consideration, by the FirstNet Authority, which 47 U.S.C. §1426(c)(5) authorizes. Negotiation of agreements for *inbound* roaming, on the other hand, does not implicate the expenditure of FirstNet Authority funds or giving of other consideration by the FirstNet Authority.

The FirstNet Authority and AT&T also emphasize their mandate to ensure the "building, deployment, and ongoing operation of the NPSBN ... based on a *single*, national network

architecture.”¹ However interconnection and *interoperability* with *other* networks and systems does *not* constitute “building, deployment and ongoing operation” of more than a single network, or network architecture.

The “N” NPSBN is for *Nationwide*. See 47 U.S.C. §1401(21). FirstNet/AT&T agreed to construct new towers in Colorado to provide additional coverage, and the FirstNet Authority reports that AT&T has “launched” several new cell sites in other areas of the country. FirstNet Authority Comments, at 14-15. However there remain large swaths of Colorado and the country which are not currently served by the NPSBN. These include mountainous areas which will be very costly and have a greater environmental impact to serve due to the characteristics of higher frequency bands, and which will require more sites to adequately serve as a result of terrain obstructions. For example, Boulder County extends from the Eastern Plains of Colorado to the Continental Divide. It would be much more workable for First Responders to carry one LMR device with superior coverage in mountainous areas but which can interoperate with the NPSBN through an interface, than to carry two devices.

Too often, public safety agency radio system and service purchasing decisions have been driven by LMR interoperability issues. These decisions should be driven by the service characteristics which best meet the agency’s particular requirements to best serve its jurisdiction, within the constraints of its publicly funded budget. (Unlike the federal government, local and state governments in Colorado and other states cannot borrow money, and must operate within the constraint of current tax revenues.) Until FirstNet achieves a nationwide footprint for the interoperable NPSBN, and public safety agency budgets permit, there will be public safety agencies which will have no choice but to rely upon extant public safety radio systems and commercial providers. Indeed, pending the NPSBN achieving a nationwide footprint or

¹ See, e.g. AT&T Comments at 4, FirstNet Authority Comments, at 3.

providing interoperability, agencies may incur increased costs maintaining LMR systems, CMRS, *and now* NPSBN services.

Extant public safety radio systems and services, including commercial CMRS services to First Responders, are not “competitors” to the NPSBN. They are complementary services with a complementary mission and which are capable of providing additional diversity and continuity of public safety communications. Interoperability with extant public safety communications systems and services best serves the interests of public safety and the public, whereas use of non-interoperability to drive market share serves only the pecuniary interests of commercial providers.

In any event, the recommendations of the Interoperability Board specifically addressed interoperability with LMR and commercial LTE systems. With respect to interoperability with LMR Systems, the Interoperability Board stated:

4.4.3.1 Interoperability with Land Mobile Radio Systems

Networks that provide voice service as an application should provide voice interoperability interfaces to existing agency LMR systems in the area served by the broadband network. Public Safety users on such home or visited networks should be able to call or hail an authoritative dispatch agency or control point using the broadband network subscriber device with microphone and speaker for two-way audio, and talk or be connected to other serving agency voice communications resources. Because the devices and device capabilities for this feature will develop over time, this feature may be considered a future requirement.

Recommended Considerations

- (19) The NPSBN SHOULD allow for connection and operation of IP-based LMR voice interoperability gateways using open interfaces as they are developed.

See, Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network, Final Report, Section 4.4.3.1 at 52 (May 22,

2012), available at <https://ecfsapi.fcc.gov/file/7021919873.pdf> (“Interoperability Board Final Report”).

As discussed above FirstNet cites the Act’s provision that it “shall negotiate and enter into, *as it deems appropriate*, roaming agreements with commercial network providers to allow the [NPSBN] *to roam onto commercial networks* and gain prioritization of public safety communications over such networks in times of emergency,”² and contends that it “is under no obligation to offer roaming and prioritization services to users of other networks.”³ While the Act does not contain a provision specifically and directly mandating the FirstNet Authority provide for roaming onto the NPSBN and prioritization of public safety users of other networks; the very purpose of Congress in the Act and in creating the FirstNet Authority and the NPSBN was to remedy the lack of interoperability among public safety communications systems and services. BRETSA submits that, consistent with Congressional intent in the Act, the FirstNet Authority (and the Commission) *does* have an obligation to support and broaden interoperability among public safety radio systems and services; not to perpetuate it.

The interoperability standards developed by the Interoperability Board and approved by the Commission⁴ clearly envision roaming between networks *including* roaming by public safety users of commercial cellular networks onto the NPSBN:

4.5 Handover and Mobility

* * *

Roaming refers to the ability of a user device to connect to a network that is not its home network. Such networks may operate in different bands using different technologies. Hence, the user device must also support these technologies to successfully support roaming to the new network. Support for roaming is an essential element of interoperability between disparate systems. It is addressed

² FirstNet Authority Comments, at 7, citing 47 C.F.R. 1426(c)(5).

³ FirstNet Authority Comments, at 8.

⁴

herein only in the context of roaming between the NPSBN and other networks, such as commercial cellular networks.

4.5.1 Definitions

We define the following terms:

* * *

Roaming: The ability of a wireless user to receive services in a network provided by a different service provider, using a PLMN identity differing from that in the user's home network. This can include mobile as well as Wi-Fi networks. The roaming user is typically charged roaming fees while making use of the roaming network.

Interoperability Board Final Report, §§4.5, 4.5.1, at 58.

And

4.8.5 Roaming

Section 6206(c)(5) of the Spectrum Act permits FirstNet to enter into roaming agreements with commercial network providers. There are many security implications for these roaming agreements that will require robust risk/threat/vulnerability analysis. Of particular concern is the possibility that implementation of these agreements could undermine the security requirements contained in this document. As an example, with 3GPP technologies, a user device is authenticated in the Home Network, and not in the visited network. *Therefore, a user device homed to a commercial network would be authenticated by the commercial network and not the NPSBN. If the commercial network operates with an authentication implementation that is less stringent than the NPSBN, a form of "bidding-down" of security requirements will occur for users that are homed on a commercial network but operating on the NPSBN RAN and Serving network. FirstNet will need to balance the security requirements with meeting an interoperability goal of this board: to utilize commercially adopted standards.*

Interoperability Board Final Report, §4.8.5, at 81 (*Emphasis added*). The Interoperability Board not only recognized the importance of interoperability between LMR and LTE (CMRS) systems on the one hand, and the NPSBN on the other, but the importance of the development of standards for interoperability.

III. The Commission Has The Authority To Grant The BRETSA Petitions.

47 U.S.C. §1423(c)(3)(A) authorized and directed the Commission to approve the Interoperability Board's recommendations, with any revisions it deems necessary, and transmit them to the FirstNet Authority. Certainly that authority must include the authority to clarify, and even enforce, the recommendations.

47 U.S.C. 1433 provides that "[t]he Commission may provide technical assistance to the First Responder Network Authority and may also take any action necessary to assist the First Responder Network Authority in effectuating its duties and responsibilities...." Clarifying NPSBN, LMR system provider and CMRS provider interoperability obligations, requiring service and system providers to cooperate with AT&T's efforts to implement NPSBN interoperability with LMR, establishing rules for all roaming arrangements to assure interoperability and accommodate the bidirectional nature of such roaming agreements (specifically including roaming and prioritization as applicable to push-to-talk, mission critical push-to-talk and other applications that will face similar issues) and clarifying the availability of Commission processes for dispute resolution as well as standards for dispute resolution concerning matters of interoperability, roaming and prioritization; will assist the FirstNet Authority in effectuating its duties and responsibilities.

Finally, it would appear consistent with the Commission's plenary authority over the radio frequency spectrum, for the Commission to mandate that public safety radio system and

service providers cooperate in development of interoperable interfaces, where technically feasible.

Respectfully submitted,

**BOULDER REGIONAL EMERGENCY
TELEPHONE SERVICE AUTHORITY**

By: 

Joseph P. Benkert

Joseph P. Benkert, P.C.

8506 Porcupine Pointe

Parker, CO 80134

(303) 948-2200

Its Attorney

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